

## **What is claimed is:**

**[Claim 1]** A method for obtaining information from a relational database, comprising the steps of:

formulating a query to retrieve data from the database,  
where a first portion of the query specifies the data to be retrieved  
and a second portion of the query specifies a format for graphing the data;  
transmitting the query to the database;  
causing data to be returned from the database in accordance with the query;  
and  
presenting the data in accordance with said format.

**[Claim 2]** A method according to claim 1, wherein the first portion of the query and the second portion of the query are formulated in a structured query language (SQL).

**[Claim 3]** A method according to claim 1, wherein the data is returned as a binary image and presented as a graph.

**[Claim 4]** A method according to claim 1, wherein an image representation of data in ASCII format is returned from the database and presented as a graph.

**[Claim 5]** A method according to claim 1, wherein said step of causing the data to be returned further comprises interpreting the query in accordance with a structured query language (SQL) having keywords and syntax for specifying said format.

**[Claim 6]** A method according to claim 5, wherein the graphical image is one of a line graph, a horizontal bar chart, a vertical bar chart, a pie chart, a scatter plot, a contour plot, and a wafer map, in accordance with a keyword in the second portion of the query.

**[Claim 7]** A method according to claim 1, wherein said step of causing the data to be returned further comprises:

interpreting the first portion of the query to cause the data to be retrieved;  
creating a dataset for the data;  
incorporating the data into the dataset; and  
constructing a graphical image using the data, in accordance with said format.

**[Claim 8]** A method according to claim 7, wherein said interpreting step further comprises parsing the query so that the first portion of the query and the second portion of the query are interpreted separately.

**[Claim 9]** A method for querying a database, comprising the steps of:  
specifying the data to be returned from the database in a first portion of a query; and  
specifying a format for graphing the data in a second portion of the query, the data thereby being returned as a graphical image in accordance with said format.

**[Claim 10]** A method according to claim 9, wherein the first portion of the query and the second portion of the query are in a structured query language (SQL).

**[Claim 11]** A method according to claim 9, wherein the graphical image is a binary image.

**[Claim 12]** A method according to claim 9, wherein the graphical image is a representation of the data in ASCII format.

**[Claim 13]** A method according to claim 10, wherein the SQL includes keywords and syntax for specifying said format.

**[Claim 14]** A method according to claim 13, wherein the graphical image is one of a line graph, a horizontal bar chart, a vertical bar chart, a pie chart, a scatter plot, a contour plot, and a wafer map, in accordance with a keyword in the second portion of the query.

**[Claim 15]** A system for retrieving and presenting data from a database, comprising:

the database;

an input device for entering a database query;

a device for interpreting the query, where said device is effective to format the data for presentation in graphical form; and

an output device for presenting the data as a graphical image.

**[Claim 16]** A system according to claim 15, wherein the query is formulated in a structured query language (SQL).

**[Claim 17]** A system according to claim 15, wherein the query includes a first portion specifying the data to be retrieved and a second portion specifying said graphical form, and said device for interpreting the query has an interpreter for interpreting both the first portion and the second portion of the query.

**[Claim 18]** A system according to claim 15, wherein the query includes a first portion specifying the data to be retrieved and a second portion specifying

said graphical form, and said device for interpreting the query has a first interpreter for interpreting the first portion of the query and a second interpreter for interpreting the second portion of the query.

[Claim 19] A system according to claim 18, wherein the first interpreter is effective to cause return of the data from the database in accordance with the first portion of the query, and the second interpreter is effective to parse the query into the first portion and the second portion; create a dataset for the data; incorporate the data into the dataset; and construct the graphical image using the data, in accordance with the second portion of the query.

[Claim 20] A system according to claim 15, wherein the graphical image is a binary image.

[Claim 21] A system according to claim 15, wherein the graphical image is a representation of the data in ASCII format.

[Claim 22] A system according to claim 16, wherein the SQL includes keywords and syntax for specifying said graphical form.

[Claim 23] A system according to claim 15, wherein the graphical image is one of a line graph, a horizontal bar chart, a vertical bar chart, a pie chart, a scatter plot, a contour plot, and a wafer map, in accordance with a keyword in the second portion of the query.

[Claim 24] A computer-readable storage medium having stored therein instructions for performing a method, the method comprising the steps of:

querying a database to retrieve data therefrom in accordance with a query from a user,  
where a first portion of the query specifies the data to be retrieved  
and a second portion of the query specifies a format for graphing the data;  
transmitting the query to the database;  
causing the data to be returned from the database in accordance with the query; and  
presenting the data in accordance with said format.

[Claim 25] A computer-readable storage medium according to claim 24, wherein in said method the first portion of the query and the second portion of the query are formulated in a structured query language (SQL).

[Claim 26] A computer-readable storage medium according to claim 24, wherein in said method the data is returned as a binary image and presented as a graph.

[Claim 27] A computer-readable storage medium according to claim 24, wherein in said method an image representation of data in ASCII format is returned from the database and presented as a graph.

[Claim 28] A computer-readable storage medium according to claim 24, wherein in said method said step of causing the data to be returned further comprises interpreting the query in accordance with a structured query language (SQL) having keywords and syntax for specifying said format.

[Claim 29] A computer-readable storage medium according to claim 28, wherein in said method the graphical image is one of a line graph, a horizontal bar chart, a vertical bar chart, a pie chart, a scatter plot, a contour plot, and a wafer map, in accordance with a keyword in the second portion of the query.

**[Claim 30]** A computer-readable storage medium according to claim 24, wherein in said method said step of causing the data to be returned further comprises:

interpreting the first portion of the query to cause the data to be retrieved;  
creating a dataset for the data;  
incorporating the data into the dataset; and  
constructing a graphical image using the data, in accordance with said format.

**[Claim 31]** A computer program product for performing a method, the method comprising the steps of:

querying a database to retrieve data therefrom in accordance with a query from a user,  
where a first portion of the query specifies the data to be retrieved  
and a second portion of the query specifies a format for graphing the data;  
transmitting the query to the database;  
causing the data to be returned from the database in accordance with the query; and  
presenting the data in accordance with said format.

**[Claim 32]** A computer program product according to claim 31, wherein in said method the first portion of the query and the second portion of the query are formulated in a structured query language (SQL).

**[Claim 33]** A computer program product according to claim 31, wherein in said method the data is returned as a binary image and presented as a graph.

**[Claim 34]** A computer program product according to claim 31, wherein in said method an image representation of data in ASCII format is returned from the database and presented as a graph.

**[Claim 35]** A computer program product according to claim 31, wherein in said method said step of causing the data to be returned further comprises interpreting the query in accordance with a structured query language (SQL) having keywords and syntax for specifying said format.

**[Claim 36]** A computer program product according to claim 35, wherein in said method the graphical image is one of a line graph, a horizontal bar chart, a vertical bar chart, a pie chart, a scatter plot, a contour plot, and a wafer map, in accordance with a keyword in the second portion of the query.

**[Claim 37]** A computer program product according to claim 31, wherein in said method said step of causing the data to be returned further comprises:  
interpreting the first portion of the query to cause the data to be retrieved;  
creating a dataset for the data;  
incorporating the data into the dataset; and  
constructing a graphical image using the data, in accordance with said format.

**[Claim 38]** In a structured query language (SQL) for querying a database to cause specified data to be returned therefrom, the improvement comprising:  
keywords for specifying a format for graphing the returned data; and  
syntax for recognizing said keywords, thereby causing the data to be presented as a graph according to said format.

**[Claim 39]** In a computer program product for interpreting a structured query language (SQL), the SQL used to formulate a query to a database to cause data to be returned therefrom, the improvement comprising:  
first computer program code for recognizing keywords for specifying a format for graphing the data; and

second computer program code for causing the data to be presented as a graph according to said format.

**[Claim 40]** In a computer program product according to claim 39, the improvement further comprising first computer program code including code for recognizing a delimiter keyword separating SQL statements in a first portion of the query specifying the data from SQL statements in a second portion of the query specifying said format.